

ON AND OFF DUTY IN ANNAM.¹

THIS is the work of an Englishwoman, who accompanied her husband, a doctor in the French Colonial Service, to Nhatrang, on the coast of Annam. On landing in Saigon, the capital of Cochinchina, she recounts her impressions of the city in terms much more favourable than one would



FIG. 1.—A Well-made Moi Dwelling. From "On and Off Duty in Annam."

expect who had visited the place in its early stages of development. It was then a scattered, sickly settlement; it is now "the Paris of the East," with its wide, well-appointed boulevards and imposing public buildings, the Governor's palace, cathedral, theatre, and hotels, after the best models in Europe. All the more praise to the Government for the transformation of this once swampy wilderness into probably the fairest city in further Asia, equipped with all the latest scientific appliances in effective operation. Its Pasteur Institute has done admirable work in arresting the ravages of plague, cholera, and diseases common to the tropics. The author and her husband were sent to Nhatrang, where the doctor was appointed assistant to the president of the Pasteur Institute, Dr. Yersin, who was one of Pasteur's first pupils, and justified his being chosen to carry out colonial work by his original discoveries, and his energy successfully displayed in other directions.

The author's notes on the native dread of the European treatment of disease are piquant, and enlivened by her keen sense of humour. Their superstitious treatment of the sick is in itself a plague, accountable for greatly increasing the death-rate. This lady's efforts in founding a home in this distant colony will fascinate the reader used to all the comforts and amenities of the West. Her servants had to be taught the elementary principles of truth and cleanliness, and to adopt her point of view regarding honesty, but she had other worries provided by the

inroads of destructive insects that had to be dealt with. Her success in utilising the most unpromising material, and creating a pleasant home are worthy of all praise. The cost of living in this region, under the eye of a trained economist, compares favourably with that of the West. She found seven shillings a week sufficient allowance for the cook, who had to provide "three courses for lunch and the same for dinner." This may induce some of the "hard hit" at home to emigrate to the hospitable shores of Annam.

The manners and customs of the Annamites, which are ably set forth, may stem the tide of settlers flowing Eastward. Be that as it may, the author's pictures of life in this region are not without attraction.

The history of Annam is passed in review in this interesting work, and the part played by the aborigines, whose country she explored when off duty. Government and religion are also discussed. But in this vast section of eastern Asia some weighty problems await solution regarding the different races that people its area, and the religions which they follow.

Cambodia, the latest acquisition of France, is touched upon with a light hand, and in some respects it is the most important of her Eastern possessions. It was at one time an extensive and powerful kingdom, inhabited by a highly civilised race of men,

whose stone temples, cities, and palaces remain to bear witness to their skill as builders, and to their knowledge of art. In the last and greatest temple reared, Nakhon Wat, one has evidence that this was an early stronghold of Brahmanism, a Far Eastern outpost of the faith. In its outer galleries, sculptured in low relief, half life-size, on the stone walls a series



FIG. 2.—The Verandah of the Pasteur Institute. From "On and Off Duty in Annam."

of illustrations meant for all time of the chief episodes of India's sacred epics, the *Ramáyána*, and *Mahábhárata*, in which the design, craftsmanship, and drawing are so excellent as to suggest Western influence. There is no Brahmanical temple in India so vast and imposing. Notices of Cambodia are found in the Chinese annals of the Tsin, Sui, and Tang

¹ "On and Off Duty in Annam" By Gabrielle M. Vassal. Pp. xi + 283 (London: William Heinemann, 1910.) Price 10s. net.

dynasties, which throw some light on the early history of this region.

The author describes the ancient temple at Nha-trang, stone built, with inscriptions in primitive Pali, similar to those found in Nakhon Wat, and other monuments scattered over a vast area.

In conclusion, the book covers a wide field of interest, and is a welcome addition to the literature of further Asia.

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LAKE CHAD.¹

THE first volume gives the geographical results of the mission presided over by Captain Tilho (which undertook, in connection with British delegates, a delimitation of the Anglo-French frontier in the region of Lake Chad and northern Nigeria). The main purport of this volume is the survey and delineation of that extraordinarily puzzling feature in African geography, Lake Chad—a "lake" described by Captain Tilho as being nothing but an immense marsh with variable stretches of open water nowhere more than 12 feet deep.

Probably the first definite mention of Lake Chad (under the name of Zad) occurs in the writings of Frederick Hornemann, at the very close of the eighteenth century. (Hornemann, who was taken into the employ of the English African Association, and sent by them to reveal this lake and also the central course of the Niger, is believed to have reached the Niger and to have died in the Nupe country about 1800.) But rumours of a great sheet of water in the heart of Africa, beyond the Sahara Desert, had probably reached the Romans in the first century of the Christian era, through their connection with Tunis, Tripoli, and Fezzan, and these stories were reflected in the conjectured Libya Palus of Claudius Ptolemaeus, who wrote in the middle of the second century. When the Arabs and Moors had become thoroughly acquainted with the geography of the Sudan they revived these traditions, but mixed them up with both the Niger and the Nile systems.

As a matter of fact, the basin of Lake Chad is curiously on the balance between the watersheds of the Nile and of the Niger. The work of other and earlier French expeditions (especially that of Dr. Auguste Chevalier) which preceded that of Captain Tilho has put before us evidence of a faunistic and geological character which prompts the supposition that Lake Chad is the very last vestige (shrinking annually, one might say) of a vast, shallow, inland sea, which covered much of the region north, east, and, above all, west of Lake Chad, of the basin of the Niger north of the mountains, and probably communicated with the sea along the basin of the Senegal River. Whether there was any north-eastern outlet towards the Nile basin is more doubtful. Looking at the most recent map of Africa in relief, it would seem more probable that there has been for ages a bridge of high land through the Tibesti country which has connected southern Tunis with Central Africa, and separated the Niger-Chad basins from that of the Nile; but it is more likely that down to the close of the Secondary epoch, or even at the very beginning of the Tertiaries, there may have been a connection between the Chad-Shari basin and that of the Congo. Nearly the whole of the Congo basin was, down to a relatively recent period, a vast freshwater lake. A rise of ground so slight as scarcely to be perceptible to the traveller separates at the present day the basin of the Shari River from that of the

Mubangi-Wele, which, of course, marks the existing limits to the north of the former Congo Sea, that sea which in Tertiary times forced its present narrow outlet through the Crystal Mountains into the southern Atlantic. Many arguments for the justification of these hypotheses (as also for arguing the relatively early detachment of the Congo Sea from that of the Sahara) may be found in the remarkable works of Mr. G. A. Boulenger on the fresh-water fishes of Africa. From this same source, again, may be derived further arguments for the relatively recent existence of the Chad-Niger Sea, and perhaps also for the close geographical connection between that vast area of fresh water and the great lake which formerly filled up much of the Bahr-al-Ghazal-and-Upper-Nile regions, a lake represented at the present day by the Sudd region.

Other French expeditions dealing with the country between Lake Chad and the Mubangi-Congo have established the existence (it is said) of the manati in the Shari River, and, above all, in the isolated lakes and pools to the north-east of that stream. The manati is also stated to be found in the Niger River between Sego in the west and Yauri in the east. If this is really the case, it is further evidence for the existence and the relatively recent drying-up of this vast fresh-water Sahara Sea; for the manati is a Sirenian mammal the nearest relations of which are found fossil in lower Egypt, in the West Indies, and in Florida. The manati is still found as a living animal in the estuaries and broader rivers of West Africa, but it would be exceedingly difficult for it to reach the Upper Niger over the Busa Rapids, though it might, and perhaps does, pass up the river Benue, and thus reach the Shari by way of the Tuburi marshes. (The manati is not found in the Upper Congo.) With regard to these Tuburi marshes, we have here a very interesting problem to discuss. Another French scientific expedition established not long ago the feasibility of passing from the Upper Benue by canoe through the Tuburi marshes into the Logun River, and thus into the Shari and Lake Chad. Its leader (Lieut. Faure) has proved that at the height of the rainy season of that particular year there was continuous water communication between the mouth of the Niger and Lake Chad, so that Lake Chad was then nothing but a backwater of a river system in Central Africa which sent a superfluity of its waters to the Benue and the Niger.

Captain Tilho's work, however, though it touches on some of these hydrographical problems, deals mainly with the configuration of Lake Chad, in the volume under review. It shows that the average depth of the lake is only 1 metre 50 cm. (say 4 feet 10 inches), and in the great stretches of open water scarcely more than about 3 metres (say 10 feet). It is simply a vast swamp joining the waters of the Komadugu, which enters the Chad on the north-west, with the floods of the Shari coming in on the south-east. During the three years of study devoted by this mission, the only area of open water remaining in the Chad was quite outside British political limits, and lay to the north and north-west of the Shari delta. The rest of the lake surface was either completely dry land (north of the Komadugu River) or it consisted in the east of an archipelago of almost innumerable islands interspersed with lagoons, pools, and navigable creeks. Where Denham saw the waters of Lake Chad at Ngigmi in 1822 there may be a few tiny pools or a small area of moist ground, but the rest of the northern third of the lake has become absolutely dry land.

No doubt to the later expeditions of Barth and Vogel the surface of open water in Lake Chad was

¹ République Française. Ministère des Colonies. "Documents scientifiques de la Mission Tilho" (1906-9). First Volume. Pp. ix + 412 and Cartes. (Paris, Imprimerie nationale, 1910.)